NPDES Permit No. NM0022306

AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Clean Water Act, as amended, (33 U.S.C. 1251 et. seq; the "Act"),

Molycorp, Inc.

P.O. Box 469

Questa, New Mexico 87556

is authorized to discharge from a facility located near Questa in Taos County,

to receiving waters named the Red River, Waterbody Segment Code No. 20.6.4.122 of the Rio Grande Basin,

in accordance with this cover page and the effluent limitations, monitoring requirements, and other conditions set forth in Parts I [Requirements for NPDES Permits - 18 pages], II [Other Conditions - 15 pages], and III [Standard Conditions for NPDES Permits - 8 pages] hereof.

This permit supersedes and replaces NPDES Permit No. NM0022306 issued September 10, 1993

This permit shall become effective on

This permit and the authorization to discharge shall expire at midnight,

Issued on

Prepared by

Sam Becker Acting Director Water Quality Protection Division (6WQ) J. Scott Wilson Environmental Scientist NPDES Permits Branch (6WQ-P)

9113627



PART I - REQUIREMENTS FOR NPDES PERMITS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

OUTFALL 001

Discharge Type: Intermittent
Latitude 36°41'40.15"N, Longitude 105°38'3.37"W
Elevation: 7331.2 feet

During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted),

the permittee is authorized to discharge process water from milling operations and tailings disposal, including mine de-watering and interceptor wells, to the Red River in Segment No. 20.6.4.122 of the Rio Grande Basin.

Such discharges shall be limited and monitored by the permittee as specified below:

pH RANGE PARAMETERS/STORET CODES DISCHARGE LIMITATIONS/REPORTING REQUIREMENTS QUALITY (UNITS AS STATED) MINIMUM pH (Standard Units) 6.0 STORET: 00400 PARAMETERS/STORET CODES MONITORING REQUIREMENTS FREQUENCY OF SAMPLE **ANALYSIS TYPE** pH (Standard Units) 1/Week Grab STORET: 00400 CHEMICAL/PHYSICAL/BIOCHEMICAL DISCHARGE LIMITATIONS/REPORTING REQUIREMENTS PARAMETERS/STORET CODES QUANTITY/LOADING QUALITY/CONCENTRATION (LBS/DAY UNLESS STATED) (mg/L UNLESS STATED) MONTHLY AVG DAILY MAX DAILY MAX MONTHLY AVG Report MGD Flow Report MGD STORET: 50050 Chemical Oxygen Demand 2147 3220 60 90 STORET: 00340 **Total Suspended Solids** 716 1073 20 30 STORET: 00530 Total Arsenic (*1) 17.9 35.77 0.5 1.0

STORET: 01002 STORET: 01002 STORET: 01002 Total Arsenic (*2) S.94 13.42 0.25 0.375 STORET: 01007 Total Cadmium (*1) 0.55 0.82 0.05 0.05 STORET: 01027 Total Cadmium (*2) 2.67 4.0 0.15 0.3 STORET: 01027 Total Cadmium (*2) 2.67 4.0 0.15 0.3 STORET: 01042 Total Cadmium (*2) 1.47 2.22 0.041 0.062 STORET: 01042 Total Copper (*2) 1.47 2.22 0.041 0.062 STORET: 01042 Total Cyamide (*1) 0.9127 1.37 0.025 0.05 STORET: 01042 Total Cyamide (*1) 0.9127 1.37 0.025 0.05 STORET: 00720 Total Cyamide (*2) 0.249 0.374 0.007 0.01 STORET: 00720 Total Cyamide (*2) 1.07 107 3.0 3.0 3.0 STORET: 00720 Total Cyamide (*2) 2.15 0.6 0.6 STORET: 00951 Total Iron 2.15 2.15 0.6 0.6 STORET: 01045 Total Lead (*1) 2.8 4.23 0.3 0.6 STORET: 01045 Total Lead (*2) 1.1 1.65 0.031 0.046 STORET: 01051 Total Lead (*2) 1.1 1.65 0.031 0.046 STORET: 01051 Total Lead (*2) 1.1 1.65 0.031 0.046 STORET: 01051 Total Marcaury (*1) 0.036 0.072 0.001 0.002 STORET: 01055 Total Mercury (*2) 0.006 0.00026 0.00016 0.00024 STORET: 01052 Total Mercury (*2) 0.00057 0.00086 0.00016 0.00024 STORET: 01062 Total Zinne 7.16 7.16 0.2 0.2 0.2 O.2 O.2	PERMIT NO. NM0022306			PAGE 2	OF PART I
Total Arsenic (*2) 8.94 13.42 0.25 0.375 STORET: 01002 Total Cadmium (*1) 0.55 0.82 0.05 0.05 STORET: 01027 Total Cadmium (*2) 0.107 0.157 0.003 0.0044 STORET: 01027 Total Cadmium (*2) 0.107 0.157 0.003 0.0044 STORET: 01027 Total Copper (*1) 2.67 4.0 0.15 0.3 STORET: 01042 Total Copper (*2) 1.47 2.22 0.041 0.062 STORET: 01042 Total Copper (*2) 1.47 2.22 0.041 0.062 STORET: 01042 Total Cyanide (*1) 0.9127 1.37 0.025 0.05 STORET: 00720 Total Cyanide (*2) 0.249 0.374 0.007 0.01 STORET: 00720 Fluoride 107 107 3.0 3.0 3.0 STORET: 00920 Fluoride 107 107 3.0 0.05 0.6 STORET: 00951 Total Iron 21.5 21.5 0.6 0.6 0.6 STORET: 01045 Total Lead (*1) 2.8 4.23 0.3 0.6 STORET: 01051 Total Lead (*2) 1.1 1.65 0.031 0.046 STORET: 01051 Total Manganese 35.8 53.7 1.0 1.5 STORET: 01051 Total Mercury (*1) 0.036 0.072 0.001 0.002 STORET: 01055 Total Mercury (*1) 0.036 0.072 0.001 0.002 STORET: 71900 Total Mercury (*1) 0.036 0.072 0.001 0.002 STORET: 71900 Total Mercury (*2) 0.00057 0.00086 0.000016 0.000024 STORET: 01062 Total Zinc 7.16 7.16 0.2 0.2 STORET: 01062 Total Zinc 7.16 7.16 0.2 0.2 STORET: 01062 Total Aluminum (*2) 2.6 3.93 Report Report STORET: 0105 Total Aluminum (*2) 2.075 3.11 0.058 0.087 STORET: 0105 Total Aluminum (*2) 2.075 3.11 0.058 0.087 STORET: 01051 Total Gross Alpha (*1)(*5) N/A N/A Report pCi/I Report pCi/I STORET: 01501 PARAMETERS/STORET CODES MONITORING REQUIREMENTS PARAMETERS/STORET CODES MONITORING REQUIREMENTS FREQUENCY OF SAMPLE ANALYSIS TYPE	STORET: 01002				
STORET: 01002		8.94	13.42	0.25	0.375
STORET: 01027 Total Cadmium (*2)					
STORET: 01027 Total Cadmium (*2)	Total Cadmium (*1)	0.55	0.82	0.05	0.05
STORET: 01027 1014	STORET: 01027				
Total Copper (*1) 2.67 4.0 0.15 0.3 STORET: 01042 1.47 2.22 0.041 0.062 STORET: 01042 1.47 2.22 0.041 0.062 STORET: 01042 1.37 0.025 0.05 STORET: 00720 1.37 0.025 0.05 STORET: 00720 1.37 0.007 0.01 STORET: 00720 1.07 1.07 3.0 3.0 STORET: 00951 1.07 1.07 3.0 3.0 STORET: 00951 1.08 4.23 0.3 0.6 STORET: 01045 1.08 4.23 0.3 0.6 STORET: 01051 1.08 4.23 0.3 0.6 STORET: 01051 1.08 4.23 0.3 0.6 STORET: 01051 1.08 5.37 1.0 1.5 STORET: 01051 1.08 5.37 1.0 1.5 STORET: 01051 1.08 0.072 0.001 0.002 STORET: 01055 1.08 1.08 0.072 0.001 0.002 STORET: 11900 1.08 1.08 0.00016 0.000024 STORET: 11900 1.08 7.16 1.0 2.0 STORET: 01062 1.08 7.16 7.16 0.2 0.2 STORET: 01092 1.08 1.08 0.087 STORET: 01092 1.08 1.08 0.087 STORET: 01050 1.092 1.010 1.0002 Total Aluminum (*1) 2.6 3.93 Report Report STORET: 01050 1.08 0.087 STORET: 01501 1.08 0.087 STORET:	Total Cadmium (*2)	0.107	0.157	0.003	0.0044
STORET: 01042 1.47 2.22 0.041 0.062 STORET: 01042 0.9127 1.37 0.025 0.05 STORET: 00720 0.249 0.374 0.007 0.01 STORET: 00720 0.249 0.374 0.007 0.01 STORET: 00720 0.249 0.374 0.007 0.01 STORET: 00720 0.01 0.007 0.01 STORET: 00720 0.007 0.01 0.007 0.01 0.007 0.01 0.007 0.01 0.007 0.01 0.007 0.01 0.007 0.01 0.007 0.01 0.007 0.01 0.007 0.01 0.007 0.01 0.007 0.01 0.007 0.01 0.007 0.01 0.007 0.01 0.007 0.0					
Total Copper (*2)		2.67	4.0	0.15	0.3
STORET: 01042 Total Cyanide (*1) 0.9127 1.37 0.025 0.05					
Total Cyanide (*1) 0.9127 1.37 0.025 0.05 STORET: 00720		1.47	2.22	0.041	0.062
STORÉT: 00720 Total Cyanide (*2) 0.249 0.374 0.007 0.01					
Total Cyanide (*2) 0.249 0.374 0.007 0.01 STORET: 00720		0.9127	1.37	0.025	0.05
STORÉT: 00720					
Fluoride		0.249	0.374	0.007	0.01
STORET: 00951 Total Iron		105	105		2.0
Total Iron STORET: 01045 Total Lead (*1) STORET: 01051 STORET: 01051 Total Lead (*2) 1.1 1.65 0.031 0.046 STORET: 01051 STORET: 01051 STORET: 01055 STORET: 01050 STORET: 01050 STORET: 01050 STORET: 01062 STORET: 01062 STORET: 01062 STORET: 01062 STORET: 01062 STORET: 01092 STORET: 01092 STORET: 01092 STORET: 0105 STORET: 01501 ST		107	107	3.0	3.0
STORET: 01045 2.8		21.5	01.5	0.6	0.6
Total Lead (*1) 2.8		21.5	21.5	0.6	0.6
STORET: 01051 Total Lead (*2)		20	4.22	0.2	0.6
Total Lead (*2)		2.8	4.23	0.5	0.6
STORET: 01051 Total Manganese 35.8 53.7 1.0 1.5		1 1	1.65	0.031	0.046
Total Manganese 35.8 53.7 1.0 1.5		1.1	1.03	0.031	0.040
STORET: 01055 Total Mercury (*1) 0.036 0.072 0.001 0.002		35.8	53.7	1.0	1.5
Total Mercury (*1)		55.0	55.1	1.0	1.5
STORET: 71900 Total Mercury (*2) 0.00057 0.00086 0.000016 0.000024		0.036	0.072	0.001	0.002
Total Mercury (*2)	• • •				
STORET: 71900 Total Molybdenum 35.8 71.6 1.0 2.0		0.00057	0.00086	0.000016	0.000024
Total Molybdenum 35.8 71.6 1.0 2.0 STORET: 01062 Total Zinc Total Zinc STORET: 01092 Total Aluminum (*1) STORET: 01105 Total Aluminum (*2) STORET: 01105 Total Gross Alpha (*1)(*5) Total Gross Alpha (*2)(*5) STORET: 01501 Total Gross Alpha (*2)(*5) STORET: 01501 PARAMETERS/STORET CODES					
STORET: 01062 Total Zinc 7.16 7.16 0.2 0.2 STORET: 01092 STORET: 01105 Total Aluminum (*1) 2.6 3.93 Report Report STORET: 01105 STORET: 01105 Total Gross Alpha (*1)(*5) N/A N/A Report pCi/l Report pCi/l STORET: 01501 N/A N/A 19.8 pCi/l 29.7 pCi/l PARAMETERS/STORET CODES MONITORING REQUIREMENTS FREQUENCY OF SAMPLE ANALYSIS TYPE		35.8	71.6	1.0	2.0
STORET: 01092 Total Aluminum (*1) 2.6 3.93 Report Report					
Total Aluminum (*1) 2.6 3.93 Report Report	Total Zinc	7.16	7.16	0.2	0.2
STORET: 01105 2.075 3.11 0.058 0.087 STORET: 01105 Total Gross Alpha (*1)(*5) N/A N/A Report pCi/l Report pCi/l STORET: 01501 Total Gross Alpha (*2)(*5) N/A N/A N/A 19.8 pCi/l 29.7 pCi/l STORET: 01501	STORET: 01092		•	•	
Total Aluminum (*2) 2.075 3.11 0.058 0.087 STORET: 01105		2.6	3.93	Report	Report
STORET: 01105 Total Gross Alpha (*1)(*5) STORET: 01501 Total Gross Alpha (*2)(*5) Total Gross Alpha (*2)(*5) N/A N/A N/A N/A N/A N/A 19.8 pCi/l 29.7 pCi/l STORET: 01501 PARAMETERS/STORET CODES MONITORING REQUIREMENTS FREQUENCY OF SAMPLE ANALYSIS TYPE	STORET: 01105				
Total Gross Alpha (*1)(*5) STORET: 01501 Total Gross Alpha (*2)(*5) N/A N/A N/A N/A Report pCi/l Report pCi/l Report pCi/l 29.7 pCi/l STORET: 01501 PARAMETERS/STORET CODES MONITORING REQUIREMENTS FREQUENCY OF SAMPLE ANALYSIS TYPE		2.075	3.11	0.058	0.087
STORET: 01501 Total Gross Alpha (*2)(*5) STORET: 01501 PARAMETERS/STORET CODES MONITORING REQUIREMENTS FREQUENCY OF SAMPLE ANALYSIS TYPE					
Total Gross Alpha (*2)(*5) STORET: 01501 PARAMETERS/STORET CODES MONITORING REQUIREMENTS FREQUENCY OF SAMPLE ANALYSIS TYPE		N/A	. N/A	Report pCi/l	Report pCi/l
PARAMETERS/STORET CODES MONITORING REQUIREMENTS FREQUENCY OF SAMPLE ANALYSIS TYPE		27/4	3744	400 015	
FREQUENCY OF SAMPLE ANALYSIS TYPE		N/A	N/A	19.8 pCi/l	29.7 pCi/l
FREQUENCY OF SAMPLE ANALYSIS TYPE	PARAMETERS/STORET CODES		MONITORING RE	OUIREMENTS	
<u>ANAL YSIS</u> TYPE					
	•			•	
	Flow				

PARAMETERS/STORET CODES	MONITORING REQUIREMENTS		
·	FREQUENCY OF	SAMPLE	
	ANALYSIS	TYPE	
Flow STORET: 50050	Continuous	Record	
Chemical Oxygen Demand STORET: 00340	1/Month	24-Hr. Composite (*3)	
Total Suspended Solids STORET: 00530	1/Month	24-Hr. Composite (*3)	
Total Arsenic	1/Month	24-Hr. Composite (*3)	

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STORET: 01002		
Total Cadmium	1/Week	24-Hr. Composite (*3)
STORET: 01027	1077	04.11. (3. 14. (40.)
Total Copper	1/Week	24-Hr. Composite (*3)
STORET: 01042	106.1	04 II 0 '4 (#2)
Total Cyanide	1/Month	24-Hr. Composite (*3)
STORET: 00720	106.4	04 II (C'4 (*2)
Fluoride	1/Month	24-Hr. Composite (*3)
STORET: 00951	1/Month	24 II. C
Total Iron STORET: 01045	1/Month	24-Hr. Composite (*3)
Total Lead	1/Week	24 Ur. Composito (*2)
STORET: 01051	1/ Week	24-Hr. Composite (*3)
Total Manganese	1/Month	24-Hr. Composite (*3)
STORET: 01055	171VIOIIII	24-111. Composite (3)
Total Mercury	1/Week	24-Hr. Composite (*3)
STORET: 71900	17 WEEK	2 (III. Composite (3)
Total Molybdenum	1/Month	24-Hr. Composite (*3)
STORET: 01062	1,1,101141	2 · 12 · composite (5)
Total Zinc	1/Month	24-Hr. Composite (*3)
STORET: 01092		1
Total Aluminum (*1)	1/Month	24-Hr. Composite (*3)
STORET: 01105		•
Total Aluminum (*2)	1/Week	24-Hr. Composite (*3)
STORET: 01105		
Radiation: Total Gross Alpha (*1)	1/Month	Grab
STORET: 01501		
Radiation: Total Gross Alpha (*2)	1/Week	Grab
STORET: 01501		

WHOLE EI	FFLUENT TOXICITY		

	· · · · · · · · · · · · · · · · · · ·	•	
PARAMETERS/STORET CODES	DISCHARGE LIMITAT	TIONS/REPORTING REQUIREMENTS	
	QUALITY (PERCENT % UNLESS STATED)		
•	MONTHLY AVG MINIMUM	7-DAY MINIMUM	
Whole Effluent Toxicity Testing (*4)			
(7-Day Static Renewal)			
Pimephales promelas			
STORET: TLP6C	***	Report	
STORET: TOP6C	***	Report	
STORET: TPP6C	***	Report	
Ceriodaphnia dubia		•	
STORET: TLP3B	***	Report	
STORET: TOP3B	****	Report	
STORET: TPP3B	***	Report	
		-	

Species Quality Reporting Units: Pass = 0, Fail = 1

PARAMETERS/STORET CODES	MONITORING REQUIREMENTS		
	FREQUENCY OF	SAMPLE	
	ANALYSIS	TYPE	
Whole Effluent Toxicity Testing			
(7-Day Static Renewal)	•		
Pimephales promelas			
STORET: TLP6C	1/year	24-Hr. Composite (*3)	
STORET: TOP6C	1/year	24-Hr. Composite (*3)	
STORET: TPP6C	1/year	24-Hr. Composite (*3)	
Ceriodaphnia dubia			
STORET: TLP3B	1/six months	24-Hr. Composite (*3)	
STORET: TOP3B	1/six months	24-Hr. Composite (*3)	
STORET: TPP3B	1/six months	24-Hr. Composite (*3)	

SAMPLING LOCATION(S) AND OTHER REQUI	REMENTS	•	

SAMPLING LOCATION(S)

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): after final treatment and prior to discharge to the Red River.

DEFINITIONS

The term "runoff" shall mean the flow of storm water resulting from precipitation or snow/ice melt coming into contact with the industrial facility property.

The term "uncontaminated runoff" shall mean runoff which does not come into contact (other than incidental) with any raw material, intermediate product, finished product, by-product, or waste product located on the industrial facility property.

NO DISCHARGE REPORTING

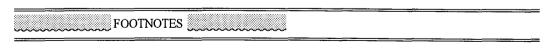
If there is no discharge event at this outfall during the sampling month, place an "X" in the <u>NO DISCHARGE</u> box located in the upper right corner of the preprinted Discharge Monitoring Report.

FLOATING SOLIDS OR VISIBLE FOAM

There shall be no discharge of floating solids or visible foam in other than trace amounts.

FLOW MEASUREMENTS

"Estimate" flow measurements shall not be subject to the accuracy provisions established at Part III.C.6. The daily flow value may be estimated using best engineering judgment.



^{*1} Requirements for this parameter are effective during the period beginning the effective date of the permit and lasting through one (1) day prior to two (2) years from the effective date of the permit.

- *2 Requirements for this parameter are effective during the period beginning two (2) years from the effective date of the permit and lasting through the expiration date of the permit.
- *3 See Part II.C.
- *4 See Part II.G.
- *5 EPA Method 900

OUTFALL 002

Discharge Type: Continuous Latitude 36°41'31.36"N, Longitude 105°37'16.58"W Elevation: 7226.3 feet

During the period beginning the effective date of the permit and lasting until commencement of discharge at Outfall 001 (*5),

the permittee is authorized to discharge seepage from the tailings impoundment to the Red River in Segment No. 20.6.4.122 of the Rio Grande Basin.

Such discharges shall be limited and monitored by the permittee as specified below:

pH RANGE	~~~	
PARAMETERS/STORET CODES	DISCHARGE LIMITATIONS/RE	PORTING REQUIREMENTS
	-	ALITY (UNITS AS STATED)
pH (Standard Units) STORET: 00400	<u>MINIM</u>	<u>UM</u> <u>MAXIMUM</u> 6.0 9.0
PARAMETERS/STORET CODES	MONITORING REQUI	REMENTS
	FREQUENCY OF ANALYSIS	SAMPLE TYPE
pH (Standard Units) STORET: 00400	1/Week	Grab
CHEMICAL/PHYSICAL/BIOCH	EMICAL	

PARAMETERS/STORET CODES	DISCHARGE LIMITATIONS/REPORTING REQUIREMENTS				
	QUANTITY/	LOADING	QUALITY/CONC	ENTRATION	
	(LBS/DAY UN	LESS STATED)	(mg/L UNLE	(mg/L UNLESS STATED)	
	MONTHLY AVG	DAILY MAX	MONTHLY AVG	DAILY MAX	
Flow	Report MGD	Report MGD	****	****	
STORET: 50050					
Chemical Oxygen Demand	175	263	60	90	
STORET: 00340					
Total Suspended Solids	58	87.6	20	30	
STORET: 00530					
Total Arsenic (*1)	1.46	2.9	0.5	1.0	
STORET: 01002					
Total Arsenic (*2)	1.25	1.88	0.429	0.644	
STORET: 01002					
Total Cadmium (*1)	0.146	0.146	0.05	0.05	
STORET: 01027					
Total Cadmium (*2)	0.014	0.02	0.0048	0.007	
STORET: 01027					
Total Copper (*1)	0.438	0.876	0.15	0.3	
STORET: 01042					

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Total Copper (*2) STORET: 01042	0.12	0.18	0.041	0.062
Total Cyanide (*1) STORET: 00720	0.073	0.146	0.025	0.05
Total Cyanide (*2) STORET: 00720	0.0429	0.064	0.0147	0.022
Fluoride STORET: 00951	8.75	8.75	3.0	3.0
Total Iron STORET: 01045	1.75	1.75	0.6	0.6
Total Lead (*1) STORET: 01051	0.876	1.75	0.3	0.6
Total Lead (*2) STORET: 01051	0.63	0.95	0.216	0.325
Total Manganese STORET: 01055	2.9	4.38	1.0	1.5
Total Mercury (*1) STORET: 71900	0.0029	0.0058	0.001	0.002
Total Mercury (*2) STORET: 71900	0.000336	0.0005	0.00011	0.00017
Total Molybdenum STORET: 01062	9.6	14.7	3.3	5.03
Total Zinc STORET: 01092	0.58	0.58	0.2	0.2
Total Aluminum (*1) STORET: 01105	0.25	0.376	Report	Report
Total Aluminum (*2) STORET: 01105	0.169	0.254	0.058	0.087

PARAMETERS/STORET CODES	MONITORING REQUI	NG REQUIREMENTS		
	FREQUENCY OF	SAMPLE		
	<u>ANAL YSIS</u>	TYPE		
Flow	Continuous	Record		
STORET: 50050		•		
Chemical Oxygen Demand	1/Month	24-Hr. Composite (*3)		
STORET: 00340				
Total Suspended Solids	1/Month	24-Hr. Composite (*3)		
STORET: 00530				
Total Arsenic	1/Month	24-Hr. Composite (*3)		
STORET: 01002				
Total Cadmium	1/Month	24-Hr. Composite (*3)		
STORET: 01027				
Total Copper	1/Month	24-Hr. Composite (*3)		
STORET: 01042				
Total Cyanide	1/Month	24-Hr. Composite (*3)		
STORET: 00720		•		
Fluoride	1/Month	24-Hr. Composite (*3)		
STORET: 00951				
Total Iron	1/Month	24-Hr. Composite (*3)		
STORET: 01045	•			
Total Lead	1/Month	24-Hr. Composite (*3)		
STORET: 01051		-		

PERMIT NO. NM0022306		PAGE 8 OF PART I
Total Manganese STORET: 01055	1/Month	24-Hr. Composite (*3)
Total Mercury	1/Month	24-Hr. Composite (*3)
STORET: 71900 Total Molybdenum	1/Month	24-Hr. Composite (*3)
STORET: 01062 Total Zinc	1/Month	24-Hr. Composite (*3)
STORET: 01092 Total Aluminum	1/Month	24-Hr. Composite (*3)
STORET: 01105		
WHOLE EFFLUENT TOX	ICITY TESTING	* · · · · · · · · · · · · · · · · · · ·
PARAMETERS/STORET CODES	DISCHARGE LIM	ITATIONS/REPORTING REQUIREMENTS
·	QUALITY (PERCENT % UI MONTHLY AVG MINIMUM	NLESS STATED) 7-DAY MINIMUM
Whole Effluent Toxicity Testing (*4)	MONTEL I AVO MINIMOM	7-DAT MINIMOM
(7-Day Static Renewal)		
Pimephales promelas		
STORET: TLP6C	****	Report
STORET: TOP6C	****	Report
STORET: TPP6C	***	Report
Ceriodaphnia dubia		
STORET: TLP3B	****	Report
STORET: TOP3B	****	Report
STORET: TPP3B	****	Report
Species Quality Reporting Units: Pass = 0	0, Fail = 1	
PARAMETERS/STORET CODES	MONITORING REQU	<u>IREMENTS</u>
	FREQUENCY OF	SAMPLE
	ANALYSIS	TYPE
Whole Effluent Toxicity Testing		•
(7-Day Static Renewal)		
Pimephales promelas		
STORET: TLP6C	1/year	24-Hr. Composite (*3)
STORET: TOP6C	1/year	24-Hr. Composite (*3)
STORET: TPP6C	1/year	24-Hr. Composite (*3)
Ceriodaphnia dubia	1/1	OATE CO. 11 (†2)
STORET: TLP3B	1/six months	24-Hr. Composite (*3)
STORET: TOP3B	1/six months	24-Hr. Composite (*3)
STORET: TPP3B	1/six months	24-Hr. Composite (*3)

SAMPLING LOCATION(S) AND OTHER REQUIREMENTS

SAMPLING LOCATION(S)

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): After collection of the combined seepage from the tailings impoundment and prior to discharge to the Red River.

DEFINITIONS

The term "runoff" shall mean the flow of storm water resulting from precipitation or snow/ice melt coming into contact with the industrial facility property.

The term "uncontaminated runoff" shall mean runoff which does not come into contact (other than incidental) with any raw material, intermediate product, finished product, by-product, or waste product located on the industrial facility property.

NO DISCHARGE REPORTING

If there is no discharge event at this outfall during the sampling month, place an "X" in the <u>NO DISCHARGE</u> box located in the upper right corner of the preprinted Discharge Monitoring Report.

FLOATING SOLIDS OR VISIBLE FOAM

There shall be no discharge of floating solids or visible foam in other than trace amounts.

FLOW MEASUREMENTS

"Estimate" flow measurements shall not be subject to the accuracy provisions established at Part III.C.6. The daily flow value may be estimated using best engineering judgment.

FOOTNOTES

- *1 Requirements for this parameter are effective during the period beginning the effective date of the permit and lasting through one (1) day prior to two (2) years from the effective date of the permit.
- *2 Requirements for this parameter are effective during the period beginning two (2) years from the effective date of the permit and lasting through the expiration date of the permit.
- *3 See Part II.D.
- *4 See Part II.I.
- *5 These limits shall again be in effect if discharge at Outfall 001 ceases.

OUTFALL 002

Discharge Type: Continuous Latitude 36°41'31.36"N, Longitude 105°37'16.58"W Elevation: 7226.3 feet

During the period beginning after commencement of discharge at Outfall 001 and lasting through the expiration date of the permit or until discharge at Outfall 001 ceases (*5),

the permittee is authorized to discharge seepage from the tailings impoundment to the Red River in Segment No. 20.6.4.122 of the Rio Grande Basin.

Such discharges shall be limited and monitored by the permittee as specified below:

pH RANGE _	· · · · · · · · · · · · · · · · · · ·			
PARAMETERS/STORET CODES	DISCHA	ARGE LIMITAT	IONS/REPORTING	G REQUIREMENTS
			• •	UNITS AS STATED)
pH (Standard Units) STORET: 00400			MINIMUM 6.0	<u>MAXIMUM</u> 9.0
PARAMETERS/STORET CODES		MONITORING	G REQUIREMENT	ΓS
		FREQUENCY ANALYSIS		APLE
pH (Standard Units) STORET: 00400	•	1/Week	Grab)
•				
CHEMICAL/PHYSIC	CAL/BIOCHEMICAL			
PARAMETERS/STORET CODES	DISCHA	RGE LIMITAT	IONS/REPORTIN	G REQUIREMENTS
	QUANTITY/LO			ONCENTRATION
	(LBS/DAY UNLE		` `	NLESS STATED)
E1	MONTHLY AVG		MONTHLY AV	G DAILY MAX
Flow	Report MGD	Report MGD	ጥጥባ	rr •••••

	QUANTITY/LOADING		QUALITY/CONCENTRATION	
	(LBS/DAY UNLESS STATED)		(mg/L UNLESS STATED)	
	MONTHLY AVG	DAILY MAX	MONTHLY AVG	DAILY MAX
Flow	Report MGD	Report MGD	****	****
STORET: 50050				
Chemical Oxygen Demand	175	263	60	. 90
STORET: 00340				
Total Suspended Solids	58	87.6	20	30
STORET: 00530				
Total Arsenic (*1)	1.46	2.9	0.5	1.0
STORET: 01002				
Total Arsenic (*2)	0.73	1.1	0.25	0.375
STORET: 01002				
Total Cadmium (*1)	0.146	0.146	0.05	0.05
STORET: 01027				
Total Cadmium (*2)	0.009	0.013	0.003	0.0044
STORET: 01027		•		
Total Copper (*1)	0.438	0.876	0.15	0.3

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STORET: 01042				
Total Copper (*2)	0.12	0.18	0.041	0.062
STORET: 01042	0.12	0.10	0.041	0.002
Total Cyanide (*1)	0.073	0.146	0.025	0.05
STORET: 00720			***************************************	
Total Cyanide (*2)	0.02	0.029	0.007	0.01
STORET: 00720	,			•
Fluoride	8.75	8.75	3.0	3.0
STORET: 00951	•			
Total Iron	1.75	1.75	0.6	0.6
STORET: 01045				
Total Lead (*1)	0.876	1.75	0.3	0.6
STORET: 01051				
Total Lead (*2)	0.09	0.13	0.031	0.046
STORET: 01051		4.00		
Total Manganese	2.9	4.38	1.0	1.5
STORET: 01055	0.0000	0.0050	0.001	0.000
Total Mercury (*1)	0.0029	0.0058	0.001	0.002
STORET: 71900	0.000047	0.00007	0.000016	0.000024
Total Mercury (*2) STORET: 71900	0.000047	0.00007	0.000016	0.000024
Total Molybdenum (*1)	9.6	14.7	3.3	5.03
STORET: 01062	9.0	14.7	3.3	3.03
Total Molybdenum (*2)	4.13	6.2	1.34	2.01
STORET: 01062	4.15	0.2	1,54	2.01
Total Zinc	0.58	0.58	0.2	0.2
STORET: 01092	0.50	0.50	0.2	0.2
Total Aluminum (*1)	0.25	0.376	Report	Report
STORET: 01105			100poli	
Total Aluminum (*2)	0.169	. 0.25	0.058	0.087
STORET: 01105				
PARAMETERS/STORET CODES			REQUIREMENTS	<u> </u>
		FREQUENCY O		
Fl		ANALYSIS	<u>TYPE</u>	
Flow STORET: 50050		Continuous	Record	
Chemical Oxygen Demand		1/Month	24-Hr. Co	emposite (*3)
STORET: 00340		106.4	24.77	
Total Suspended Solids STORET: 00530		1/Month	24-Hr. Co	omposite (*3)
Total Arsenic		1/Month	24 II. Co	
STORET: 01002		i/ivioliui	24-Fil. CC	omposite (*3)
Total Cadmium		1/Month	24-Hr Co	omposite (*3)
STORET: 01027		171VIOIGI	2 4- 111. CC	imposite (3)
Total Copper		1/Month	24-Hr Co	omposite (*3)
STORET: 01042		1/14[OHH]	27-11, 00	imposite (3)
Total Cyanide		1/Month	24-Hr Cc	omposite (*3)
STORET: 00720		**************************************	27111.00	posite (3)
Fluoride		1/Month	24-Hr Co	omposite (*3)
STORET: 00951			2.11.00	()
Total Iron		1/Month	24-Hr. Co	omposite (*3)
				• '

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STORET: 01045	10.6 1	04 II G '4 (*0)
Total Lead STORET: 01051	1/Month	24-Hr. Composite (*3)
Total Manganese	1/Month	24-Hr. Composite (*3)
STORET: 01055	,	2. In. compense (5)
Total Mercury	1/Month	24-Hr. Composite (*3)
STORET: 71900		
Total Molybdenum	1/Month	24-Hr. Composite (*3)
STORET: 01062 Total Zinc	1/Month	24-Hr. Composite (*3)
STORET: 01092	1/10/10/11	24-111. Composite (3)
Total Aluminum	1/Month	24-Hr. Composite (*3)
STORET: 01105		
WHOLE EFFLUENT TOXICITY TESTING		
WHOLE EXTENDENT TO MOTIFIE THE		
		•
PARAMETERS/STORET CODES		TATIONS/REPORTING REQUIREMENTS
	QUALITY (PERCENT % UN AVG MINIMUM	LESS STATED) 7-DAY MINIMUM
Whole Effluent Toxicity Testing (*4)	A VO IVII VII VII VII VII VII VII VII VII	7-DAT MINIMON
(7-Day Static Renewal)		
Pimephales promelas		
STORET: TLP6C	****	Report
STORET: TOP6C	***	Report
STORET: TPP6C	***	Report
Ceriodaphnia dubia STORET: TLP3B	***	Donort
STORET: TOP3B	***	Report Report
STORET: TPP3B	****	Report
		, , ,
Species Quality Reporting Units: Pass = 0, Fail = 1	•	
PARAMETERS/STORET CODES	MONITORING REQUI	DEMENITS
TARAIVIETERO/STORET CODES	FREQUENCY OF	SAMPLE
·	ANALYSIS	TYPE
Whole Effluent Toxicity Testing	•	
(7-Day Static Renewal)		•
Pimephales promelas	16	24 II. C 44 (#2)
STORET: TLP6C STORET: TOP6C	1/year 1/year	24-Hr. Composite (*3) 24-Hr. Composite (*3)
STORET: TOP6C	1/year	24-Hr. Composite (*3)
Ceriodaphnia dubia	<i>y</i>	- · · · · · · · · · · · · · · · · · · ·
STORET: TLP3B	1/six months	24-Hr. Composite (*3)
STORET: TOP3B	1/six months	24-Hr. Composite (*3)
STORET: TPP3B	1/six months	24-Hr. Composite (*3)

SAMPLING LOCATION(S) AND OTHER REQUIREMENTS

SAMPLING LOCATION(S)

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): After collection of the combined seepage from the tailings impoundment and prior to discharge to the Red River.

DEFINITIONS

The term "runoff" shall mean the flow of storm water resulting from precipitation or snow/ice melt coming into contact with the industrial facility property.

The term "uncontaminated runoff" shall mean runoff which does not come into contact (other than incidental) with any raw material, intermediate product, finished product, by-product, or waste product located on the industrial facility property.

NO DISCHARGE REPORTING

If there is no discharge event at this outfall during the sampling month, place an "X" in the <u>NO DISCHARGE</u> box located in the upper right corner of the preprinted Discharge Monitoring Report.

FLOATING SOLIDS OR VISIBLE FOAM

There shall be no discharge of floating solids or visible foam in other than trace amounts.

FLOW MEASUREMENTS

"Estimate" flow measurements shall not be subject to the accuracy provisions established at Part III.C.6. The daily flow value may be estimated using best engineering judgment.

FOOTNOTES

- *1 Requirements for this parameter are effective during the period beginning the effective date of the permit and lasting through one (1) day prior to two (2) years from the effective date of the permit.
- *2 Requirements for this parameter are effective during the period beginning two (2) years from the effective date of the permit and lasting through the expiration date of the permit.
- *3 See Part II.D.
- *4 See Part II.1.
- *5 When no discharge is made at Outfall 001, limits for Outfall 002 begining on page 6 of Part I of this permit shall be in effect.

OUTFALL 004 and 005

Discharge Type: Intermittent

Outfall 004: Latitude 36°41'13.76"N, Longitude 105°32'6.54"W

Elevation: 7838.8 feet

Outfall 005: Latitude 36°41'42"N, Longitude 105°29'22"W

Elevation: 8124.5 feet

During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted),

the permittee is authorized to discharge periodic mine drainage consisting only of mine contacted surface storm water runoff to the Red River in Segment No. 20.6.4.122 of the Rio Grande Basin.

Such discharges shall be limited and monitored by the permittee as specified below:

PARAMETERS/STORET CODES	DISCHARGE LIMITATIONS/RE	EPORTING REOUIR	EMENTS
		ALITY (UNITS AS	
	MINIM	UM M	<u>AXIMUM</u>
pH (Standard Units) STORET: 00400		6.0	9.0
PARAMETERS/STORET CODES	MONITORING REQUI	REMENTS	
	FREQUENCY OF	SAMPLE	
	<u>ANAL YSIS</u>	TYPE	
pH (Standard Units) STORET: 00400	1/Day (*1)	Grab	
CHEMICAL/PHYSICAL/BIO	OCHEMICAL	* 	=

PARAMETERS/STORET CODES	DISCHARGE LIMITATIONS/REPORTING REQUIREMENTS			
	QUANTITY/LOADING		QUALITY/CONCENTRATION	
	(LBS/DAY UNLESS STATED)		(mg/L UNLESS STATED)	
	MONTHLY AVG	DAILY MAX	MONTHLY AVG	DAILY MAX
Flow	Report MGD	Report MGD	***	****
STORET: 50050			*	
Chemical Oxygen Demand	****	****	125	125
STORET: 00340				
Total Suspended Solids	***	****	20	30
STORET: 00530			•	
Total Arsenic	***	****	0.48	0.644
STORET: 01002				
Total Cadmium	***	****	0.0037	0.0055
STORET: 01027				
Total Copper	****	****	0.033	0.049
STORET: 01042				
Total Lead	****	****	0.3	0.455
STORET: 01051		•		

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Total Mercury STORET: 71900	****	***	0.0016	0.0024
Total Zinc	****	****	0.2	0.2
STORET: 01092 Total Aluminum STORET: 01105	***	***	0.5	0.75
Total Silver	***	***	0.003	0.005
STORET: 01077	***	***	0.0016	0.0004
Chlordane STORET: 39350	de de de	****	0.0016	0.0024
Total Residual Chlorine	****	****	0.0127	0.019
STORET: 50060				-

PARAMETERS/STORET CODES	MONITORING REQUIREMENTS	
	FREQUENCY OF	SAMPLE
	ANALYSIS	TYPE
Flow	1/Day (*1)	Measure (*3)(*2)
STORET: 50050		
Chemical Oxygen Demand	1/Day (*1)	24-Hr. Composite (*2)
STORET: 00340		
Total Suspended Solids	1/Day (*1)	24-Hr. Composite (*2)
STORET: 00530		
Total Arsenic	1/Day (*1)	24-Hr. Composite (*2)
STORET: 01002		
Total Cadmium	1/Day (*1)	24-Hr. Composite (*2)
STORET: 01027	·	
Total Copper	1/Day (*1)	24-Hr. Composite (*2)
STORET: 01042		
Total Lead	1/Day (*1)	24-Hr. Composite (*2)
STORET: 01051	1.50	
Total Mercury	1/Day (*1)	24-Hr. Composite (*2)
STORET: 71900	1.00	
Total Zinc	1/Day (*1)	24-Hr. Composite (*2)
STORET: 01092	106 (1 (41)	0.4.11
Total Aluminum	1/Month (*1)	24-Hr. Composite (*2)
STORET: 01105	1/1/1	24 H. G
Total Silver STORET: 01077	1/Month (*1)	24-Hr. Composite (*2)
Chlordane	1/Month (*1)	24 II. Commonite (#2)
STORET: 39350	1/Month (*1)	24-Hr. Composite (*2)
Total Residual Chlorine	1/Month (*1)	24-Hr. Composite (*2)
STORET: 50060	Mond (.1)	24-rii. Composite (*2)
510M31. 20000		•

SAMPLING LOCATION(S) AND OTHER REQUIREMENTS

SAMPLING LOCATION(S)

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): Prior to discharge from the settling basins.

DEFINITIONS

The term "runoff" shall mean the flow of storm water resulting from precipitation or snow/ice melt coming into contact with the industrial facility property.

The term "uncontaminated runoff" shall mean runoff which does not come into contact (other than incidental) with any raw material, intermediate product, finished product, by-product, or waste product located on the industrial facility property.

NO DISCHARGE REPORTING

If there is no discharge event at this outfall during the sampling month, place an "X" in the <u>NO DISCHARGE</u> box located in the upper right corner of the preprinted Discharge Monitoring Report.

FLOATING SOLIDS OR VISIBLE FOAM

There shall be no discharge of floating solids or visible foam in other than trace amounts.

FLOW MEASUREMENTS

"Estimate" flow measurements shall not be subject to the accuracy provisions established at Part III.C.6. The daily flow value may be estimated using best engineering judgment.

FOOTNOTES

- *1 When discharging
- *2 See Part II.C.
- *3 By calibrated weir.

B. PROHIBITIONS

The discharge of pollutants traceable to point source mine operations through a hydrologic connection to the Red River shall be prohibited except in trace amounts. Implementation of the Best Management Practices required by PART II.A. of this permit will constitute compliance with this prohibition at Spring 13, Spring 39, and springs in the vicinity of the old mill site below the Sugar Shack South deposit. Compliance with this prohibition shall be accomplished as soon as practicable but in no case later than two years after the effective date of this permit.

C. SCHEDULE OF COMPLIANCE

The permittee shall comply with the following schedule of activities for construction of the seepage interception system required by PART I.B. of this permit and attainment of state water quality standards-based final effluent limitations for total arsenic, total cadmium, total copper, total cyanide, total lead, total mercury, total aluminum at Outfall 001 and total arsenic, total cadmium, total copper, total cyanide, total lead, total mercury, and total aluminum at Outfall 002:

- a. Determine exceedance cause(s);
- b. Develop control options;
- c. Evaluate and select control mechanisms:
- d. Implement corrective action; and
- e. Attain final effluent limitations no later than two (2) years from the effective date of the permit.

The permittee shall submit quarterly progress reports in accordance with the following schedule. The requirement to submit quarterly progress reports shall expire two (2) years from the effective date of the permit.

PROGRESS REPORT DATE

January 31 April 30 July 31 October 31

The quarterly progress reports shall include a discussion of the interim requirements that have been completed at the time of the report and shall address the progress towards constructing the seepage interception system and attaining the state water quality standards-based final effluent limitations for total cadmium, total copper, total cyanide, total lead, total mercury, total aluminum, total silver, chlordane, and total residual chlorine at Outfall 001 and total cadmium, total copper, total cyanide, total lead, total mercury, total aluminum, and chlordane at Outfall 002 no later than two (2) years from the effective date of the permit.

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than fifteen (15) days following each schedule date. Any reports of noncompliance shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

D. REPORTING OF MONITORING RESULTS

Monitoring information shall be on Discharge Monitoring Report Form(s) EPA 3320-1 as specified in Part III.D.4 of this permit and shall be submitted monthly.

- 1. Reporting periods shall end on the last day of the month.
- 2. The permittee is required to submit regular monthly reports as described above postmarked no later than the following day of the month following each reporting period.

STATE	DAY
New Mexico Permits	15th

PART II - OTHER CONDITIONS

A. <u>BEST MANAGEMENT PRACTICES</u>

The permittee shall install the following seepage interception and management system to comply with the prohibition against the discharge to the Red River of pollutants traceable to point source mine operations except in trace amounts. Implementation of these Best Management Practices (described below) is considered compliance with this prohibition.

The permittee shall install seepage interception systems to prevent discharges of process related ground water to the Red River at Spring 13 and Spring 39. The permittee shall also install a ground water withdrawal well below the toe of the Sugar Shack South deposit at a location approximately 100 yards southwest of the old mill site.

Spring 13 is defined as the seepage zone located on the north side of the Red River at the southwest base of Goathill, just east of Capulin Canyon.

Spring 39 is defined as the seepage zone located on the north side of the Red River approximately 500 feet east of Goathill Campground.

The Spring 13 seepage interception system shall consist of a french drain with a minimum length of 400 feet long, designed and operated for a pumping rate of at least 50 gallons per minute. The french drain shall be placed at a depth at least two feet below the low water river surface and a minimum of ten feet north of the river channel. An additional french drain shall be installed which extends a minimum of 800 feet downstream from the Spring 13 french drain and is designed, constructed, and operated to capture shallow seepage flow along the river reach of the mouth of Capulin Canyon. Orifices in the french drains shall be evenly spaced at a distance of 2 to 3 feet apart.

The Spring 39 seepage interception system shall consist of a french drain with a minimum length of 400 feet, which is centered around the spring and is designed and operated for a 35 gallon per minute pumping rate. The french drain shall be placed at a depth of at least two feet below the low water river surface and a minimum of ten feet outside of the stream channel. Orifices in the french drain shall be evenly spaced at a distance of 2 to 3 feet apart.

The ground water withdrawal well shall be constructed and pumped to capture potential discharges from point source mine operations through a hydrologic connection in the vicinity of the old mill site. Water from the well shall be pumped to the mine or mill for use in operations.

The permittee shall conduct a field investigation to determine available alterations in the seepage interception system design listed above which will potentially enhance its collection efficiency. The field investigation must at a minimum include:

- a. Determination of the groundwater elevation, direction of flow, and gradient in the vicinity of spring 13, spring 39, and below the Sugar Shack deposit in the vicinity of the old mill site.
- b. Determination of the hydrological characteristics of the shallow ground water aquifer.
- c. Pilot testing of a 100 foot long collection system located at Spring 13 and determination of necessary changes to the french drain orifice size and spacing, pipe depth, and distance from river.

Field investigations conducted to determine changes to the seepage interception system design criteria described above shall be submitted to EPA Region 6 prior to implementation of those changes. Any changes must be made only after written approval from the Agency. Progress reports on field investigation and construction of the seepage interception system shall be submitted quarterly to EPA Region 6 and the New Mexico Environment Department (NMED).

Upon completion of the seepage interception system, the permittee shall evaluate the system to determine its effectiveness. The evaluation shall include a determination of the ground water yield relative to the volume and flow rate observed in the field investigation described above and a visual examination of the Red River and its northern bank in the vicinity of Spring 13, Spring 39, Portal Springs, and Cabin Springs. An analysis of existing ground water monitoring wells shall be used to determine the effectiveness of the ground water withdrawal well. A report of those evaluations shall be submitted to EPA Region 6 and NMED within three months after completion of the interception system and ground water withdrawal well. Should the seepage interception system or the ground water withdrawal well prove ineffective at capturing discharges of pollutants traceable to mine operations, the permittee shall make any necessary alterations to the system which are required to capture such discharges. The permit may be reopened to address such discharges.

The permittee shall conduct monthly visual inspections of the Red River and its banks in the vicinity of the facility, to identify any significant discharge or seepage which may be directly from or hydrologically connected to the permittee's mining operations. Visual inspection shall include the entire length of the river in the vicinity of the permittee's property and shall include the following historic seeps and springs: Goathill Gulch seep, Sulphur Gulch seep, Portal springs, Cabins Springs, Spring 39, and Spring 13. Data obtained from monitoring wells located below the tailings ponds may be substituted for visual observation of the river and its banks in that area. A report summarizing the monthly inspections shall be submitted quarterly beginning May 15th, 2001 to EPA Region 6 and NMED. In the event that such a discharge or seepage is found it shall be reported to the Agencies within fourteen days of detection of any significant discharge or

seepage. This fourteen day reporting requirement applies to Spring 13, Spring 39, and below the Sugar Shack deposit in the vicinity of the old mill only after installation of the seepage interception system. This permit may be reopened if any significant discharge or seepage occurs or if it is determined that existing seepage in other locations is hydrologically connected to the mine.

B. MINIMUM QUANTIFICATION LEVEL (MQL)

If any individual analytical test result is less than the minimum quantification level listed below, a value of zero (0) may be used for that individual result for the Discharge Monitoring Report (DMR) calculations and reporting requirements.

	MQL (ug/L)
Aluminum	100
Chlorine (Total Residual)	100
Arsenic (Total)	10
Cadmium (Total)	1
Chromium (Total)	. 10
Copper (Total)	10
Lead (Total)	5
Mercury (Total)	0.2
Nickel (Total)	. 5
Silver (Total)	2
Zinc (Total)	20
Cyanide (Total)	20
Cyanide (Amenable)	20
Chlordane	0.2
Gross Alpha (Total)	0.88 (pCi/L)

The permittee may develop an effluent specific method detection limit (MDL) in accordance with Appendix B to $40\underline{CFR}136$. For any pollutant for which the permittee determines an effluent specific MDL, the permittee shall send to the EPA Region 6 NPDES Permits Branch (6WQ-P) a report containing QA/QC documentation, analytical results, and calculations necessary to demonstrate that the effluent specific MDL was correctly calculated. An effluent specific minimum quantification level (MQL) shall be determined in accordance with the following calculation:

$$MQL = 3.3 \times MDL$$

Upon written approval by the EPA Region 6 NPDES Permits Branch (6WQ-P), the effluent specific MQL may be utilized by the permittee for all future Discharge Monitoring Report (DMR) calculations and reporting requirements.

C. <u>24-HOUR ORAL REPORTING: DAILY MAXIMUM LIMITATION VIOLATIONS</u>
Under the provisions of Part III.D.7.b.(3) of this permit, violations of daily maximum limitations for the following pollutants shall be reported orally to EPA Region 6, Compliance and Assurance Division, Water Enforcement Branch (6EN-W), Dallas, Texas, within 24 hours from the time the permittee becomes aware of the violation followed by a written report in five days.

D. COMPOSITE SAMPLING (24-HOUR)

Unless otherwise specified in this permit, the term "24-hour composite sample" means a sample consisting of a minimum of three (3) aliquots of effluent collected at regular intervals over a normal 24-hour operating period and combined in proportion to flow or a sample continuously collected in proportion to flow over a normal 24-hour operating period.

E. CYANIDE EFFLUENT TEST PROCEDURES

To comply with the sampling and analysis requirements for total cyanide and cyanide amenable to chlorination, the permittee shall use an approved test procedure at $40\underline{CFR}136$. If the analysis of cyanide amenable to chlorination is subject to matrix interferences, the weak acid dissociable cyanide method (Method 4500 CN I - Standard Methods, latest edition approved in $40\underline{CFR}136$) may be substituted for this parameter. The permittee may use ion chromatographic separation - amperometric detection (IC method) as a substitute for the colorimetric detection steps in any of the above cyanide methods. No other modifications of the above methods are authorized by this provision unless such modifications are approved in writing by the permitting authority.

F. MOLYBDENUM EFFLUENT TEST PROCEDURES

The Molycorp thiocyanate colorimetric method is approved for the analysis of molybdenum unless subsequently determined to be inappropriate by the NMED or EPA.

G. TAILINGS SPILL MONITORING REQUIREMENTS

As soon as practicable after the arrival of Molycorp's environmental staff at the site of a tailings spill that reaches the Red River, but no later than two (2) hours after arrival at the site, water quality sampling shall commence. Samples shall be taken at three sites:

- (1) Approximately 100 feet above the point where tailings enter the river;
- (2) Approximately 100 feet below the point where tailings enter the river; and
- (3) Approximately one-half mile below the point where tailings enter the river.

All samples shall be properly preserved and analyzed for:

Chemical Oxygen Demand

Total Suspended Solids

Total Arsenic

Total Cadmium

Total Copper

Total Cyanide

Fluoride

Total Iron

Total Lead

Total Manganese

Total Mercury

Total Molybdenum

Total Zinc

Total Aluminum

Total Boron

Total Chromium

Total Cobalt

Total Selenium

Total Vanadium

Total Beryllium

Total Nickel

Total Silver

Un-ionized Ammonia (as N)

Total Residual Chlorine

Temperature

pΗ

The results of the analysis shall be submitted to the EPA and the NMED within 30 days following a tailings spill.

Consistent with the procedures described in the Preventative Maintenance and Surveillance Plan and the Contingency Action and Reporting Plan (June 1975), a written report containing the following information will be sent to the EPA and the NMED within ten (10) days following any spill:

- (1) Date of Spill.
- (2) Time when the spill was observed and time when tailings flow into the river was stopped.
 - (3) Location (pipe or coupling number).
 - (4) Estimated amount of tailings that entered the river.
 - (5) Sketch and dimension of size of hole or failure that caused the spill.

- (6) Position of failure in the pipe or coupling.
- (7) Copy of the latest computer printout covering the pipe or coupling which failed.
- (8) Comments, if required for clarification.

H. REOPENER CLAUSE

The permit may be modified or revoked and reissued if any of the following events occurs:

- 1. The effluent limitations in this permit are consistent with, or more stringent than, the State of New Mexico Standards for Interstate and Intrastate Surface Waters or the limits established for dischargers in the same water body in the 1985 State Water Quality Management Plan (WQMP). The State is presently reevaluating and updating the final effluent limitations necessary to protect water quality standards. When final effluent limitations are established in an approved WQMP and if they are more stringent than those listed in this permit, or controls a pollutant not listed in this permit, then the permit may be modified or revoked and reissued to conform with the approved WQMP final effluent limitations.
- 2. Effluent monitoring requirements for the following parameter(s) have been established in this permit based on an exceedance of the EPA water quality criteria for the protection of human health from consumption of contaminated fish and shellfish:

PARAMETER STORET
Arsenic 01002

Should the State adopt a State water quality standard, this permit may be reopened for modification or revocation and reissuance to established effluent limitations for the parameter(s) to be consistent with that approved State standard in accordance with 40<u>CFR</u>122.44(d). Modification or revocation and reissuance of the permit shall follow regulations listed at 40<u>CFR</u>124.5.

3. If EPA determines that the reissuance of this permit may affect federally listed endangered or threatened species or modify the critical habitats of those species, EPA would initiate an consultation with the US Fish and Wildlife Service (FWS), in accordance with the Endangered Species Act (ESA.) The permit may be modified or revoked and reissued if EPA finds, during the ESA consultation with the FWS, that more stringent conditions are warrant for the protection of those species and/or their critical habitats.

- 4. Should evaluation of the seepage interception system field investigation, required in Part II.A. of this permit, show that substantial changes to the seepage interception system design are necessary, this permit may be modified or revoked and reissued to incorporate relevant changes to the design of the system.
- 5. Should monitoring required under PART II.A. of this permit show that the seepage interception system is ineffective or find seepage traceable to point source mine operations, this permit may be modified or revoked and reissued to address those discharges.

I. WHOLE EFFLUENT TOXICITY TESTING (7-DAY CHRONIC NOEC FRESHWATER)

1. SCOPE AND METHODOLOGY

a. The permittee shall test the effluent for toxicity in accordance with the provisions in this section.

APPLICABLE TO FINAL OUTFALL(S): 001 and 002 combined REPORTED ON DMR AS FINAL OUTFALL: TXS

CRITICAL DILUTION (%):

50

EFFLUENT DILUTION SERIES (%):

21, 28, 38, 50, and 67

COMPOSITE SAMPLE TYPE:

Defined at PART I

TEST SPECIES/METHODS:

40CFR136

Ceriodaphnia dubia chronic static renewal survival and reproduction test, Method 1002.0, EPA/600/4-91/002 or the most recent update thereof. This test should be terminated when 60% of the surviving adults in the control produce three broods.

<u>Pimephales promelas</u> (Fathead minnow) chronic static renewal 7-day larval survival and growth test, Method 1000.0, EPA/600/4-91/002, or the most recent update thereof. A minimum of five (5) replicates with eight (8) organisms per replicate must be used in the control and in each effluent dilution of this test.

b. The NOEC (No Observed Effect Concentration) is defined as the greatest effluent dilution which does not result in lethality that is statistically different from the control (0% effluent) at the 95% confidence level.

c. This permit may be reopened to require whole effluent toxicity limits, chemical specific effluent limits, additional testing, and/or other appropriate actions to address toxicity.

2. PERSISTENT LETHALITY

The requirements of this subsection apply only when a toxicity test demonstrates significant lethal effects at the critical dilution. Significant lethal effects are herein defined as a statistically significant difference at the 95% confidence level between the survival of the appropriate test organism in a specified effluent dilution and the control (0% effluent).

a. PART I TESTING FREQUENCY OTHER THAN MONTHLY

- i. The permittee shall conduct a total of two (2) additional tests for any species that demonstrates significant lethal effects at the critical dilution. The two additional tests shall be conducted monthly during the next two consecutive months. The permittee shall not substitute either of the two additional tests in lieu of routine toxicity testing. The full report shall be prepared for each test required by this section in accordance with procedures outlined in Item 4 of this section.
- ii. If one or both of the two additional tests demonstrates significant lethal effects at the critical dilution, the permittee shall initiate Toxicity Reduction Evaluation (TRE) requirements as specified in Item 5 of this section. The permittee shall notify EPA in writing within 5 days of the failure of any retest, and the TRE initiation date will be the test completion date of the first failed retest.
- iii. If one or both of the two additional tests demonstrates significant lethal effects at the critical dilution, the permittee shall henceforth increase the frequency of testing for this species to once per quarter for the life of the permit.
- iv. The provisions of Item 2.a are suspended upon submittal of the TRE Action Plan.

b. PART I TESTING FREQUENCY OF MONTHLY

The permittee shall initiate the Toxicity Reduction Evaluation (TRE) requirements as specified in Item 5 of this section when any two of three consecutive monthly toxicity tests exhibit significant lethal effects at the critical dilution.

3. REQUIRED TOXICITY TESTING CONDITIONS

a. TEST ACCEPTANCE

The permittee shall repeat a test, including the control and all effluent dilutions, if the procedures and quality assurance requirements defined in the test methods or in this permit are not satisfied, including the following additional criteria:

- i. The toxicity test control (0% effluent) must have survival equal to or greater than 80%.
- ii. The mean number of <u>Ceriodaphnia dubia</u> neonates produced per surviving adult in the control (0% effluent) must be 15 or more.
- iii. The mean dry weight of surviving Fathead minnow larvae at the end of the 7 days in the control (0% effluent) must be 0.25 mg per larva or greater.
- iv. The percent coefficient of variation between replicates shall be 40% or less in the control (0% effluent) for: the young of surviving adults in the <u>Ceriodaphnia dubia</u> reproduction test; the growth and survival endpoints of the Fathead minnow test.
- v. The percent coefficient of variation between replicates shall be 40% or less in the critical dilution, <u>unless</u> significant lethal or nonlethal effects are exhibited for: the young of surviving adults in the <u>Ceriodaphnia dubia</u> reproduction test; the growth and survival endpoints of the Fathead minnow test.

Test failure may not be construed or reported as invalid due to a coefficient of variation value of greater than 40%. A repeat test shall be conducted within the required reporting period of any test determined to be invalid.

b. STATISTICAL INTERPRETATION

i. For the <u>Ceriodaphnia dubia</u> survival test, the statistical analyses used to determine if there is a significant difference between the control and the critical dilution shall be Fisher's Exact Test as described in EPA/600/4-91/002 or the most recent update thereof.

If the conditions of Test Acceptability are met in Item 3.a above and the percent survival of the test organism is equal to or greater than 80% in the critical dilution concentration and all lower dilution concentrations, the test shall be considered to be a passing test, and the permittee shall report an NOEC of not less than the critical dilution for the DMR reporting requirements found in Item 4 below.

ii. For the <u>Ceriodaphnia dubia</u> reproduction test and the Fathead minnow larval survival and growth test, the statistical analyses used to determine if there is a significant difference between the control and the critical dilution shall be in accordance with the methods for determining the No Observed Effect Concentration (NOEC) as described in EPA/600/4-91/002 or the most recent update thereof.

c. DILUTION WATER

- Dilution water used in the toxicity tests will be receiving water collected as close to the point of discharge as possible but unaffected by the discharge. The permittee shall substitute synthetic dilution water of similar pH, hardness, and alkalinity to the closest downstream perennial water for;
 - (A) toxicity tests conducted on effluent discharges to receiving water classified as intermittent streams; and
 - (B) toxicity tests conducted on effluent discharges where no receiving water is available due to zero flow conditions.
- ii. If the receiving water is unsatisfactory as a result of instream toxicity (fails to fulfill the test acceptance criteria of Item 3.a), the permittee may substitute synthetic dilution water for the receiving water in all subsequent tests provided the unacceptable receiving water test met the following stipulations:
 - (A) a synthetic dilution water control which fulfills the test acceptance requirements of Item 3 a was run concurrently with the receiving water control;
 - (B) the test indicating receiving water toxicity has been carried out to completion (i.e., 7 days);
 - (C) the permittee includes all test results indicating receiving water toxicity with the full report and information required by Item 4 below, and

(D) the synthetic dilution water shall have a pH, hardness, and alkalinity similar to that of the receiving water or closest downstream perennial water not adversely affected by the discharge, provided the magnitude of these parameters will not cause toxicity in the synthetic dilution water.

d. SAMPLES AND COMPOSITES

- i. The permittee shall collect a minimum of three flow-weighted composite samples from the outfall(s) listed at Item 1.a above.
- ii. The permittee shall collect second and third composite samples for use during 24-hour renewals of each dilution concentration for each test. The permittee must collect the composite samples such that the effluent samples are representative of any periodic episode of chlorination, biocide usage or other potentially toxic substance discharged on an intermittent basis.
- iii. The permittee must collect the composite samples so that the maximum holding time for any effluent sample shall not exceed 72 hours. The permittee must have initiated the toxicity test within 36 hours after the collection of the last portion of the first composite sample. Samples shall be chilled to 4 degrees Centigrade during collection, shipping, and/or storage.
- iv. If the flow from the outfall(s) being tested ceases during the collection of effluent samples, the requirements for the minimum number of effluent samples, the minimum number of effluent portions and the sample holding time are waived during that sampling period. However, the permittee must collect an effluent composite sample volume during the period of discharge that is sufficient to complete the required toxicity tests with daily renewal of effluent. When possible, the effluent samples used for the toxicity tests shall be collected on separate days if the discharge occurs over multiple days. The effluent composite sample collection duration and the static renewal protocol associated with the abbreviated sample collection must be documented in the full report required in Item 4 of this section.
- v. <u>MULTIPLE OUTFALLS</u>: If the provisions of this section are applicable to multiple outfalls, the permittee shall combine the composite effluent samples in proportion to the average flow from the outfalls listed in Item 1 a above for the day the sample was

collected. The permittee shall perform the toxicity test on the flow-weighted composite of the outfall samples.

4. REPORTING

- a. The permittee shall prepare a full report of the results of all tests conducted pursuant to this section in accordance with the Report Preparation Section of EPA/600/4-91/002, or the most current publication, for every valid or invalid toxicity test initiated whether carried to completion or not. The permittee shall retain each full report pursuant to the provisions of PART III.C.3 of this permit. The permittee shall submit full reports only upon the specific request of the Agency.
- b. A valid test for each species must be reported on the DMR during each reporting period specified in PART I of this permit unless the permittee is performing a TRE which may increase the frequency of testing and reporting. Only <u>ONE</u> set of biomonitoring data for each species is to be recorded on the DMR for each reporting period. The data submitted should reflect the <u>LOWEST</u> Survival results for each species during the reporting period. All invalid tests, repeat tests (for invalid tests), and retests (for tests previously failed) performed during the reporting period must be attached to the DMR for EPA review.
- c. The permittee shall submit the results of each valid toxicity test on the subsequent monthly DMR for that reporting period in accordance with PART III.D.4 of this permit, as follows below. Submit retest information clearly marked as such with the following month's DMR. Only results of valid tests are to be reported on the DMR.
 - i. <u>Pimephales promelas</u> (Fathead Minnow)
 - (A) If the No Observed Effect Concentration (NOEC) for survival is less than the critical dilution, enter a "1"; otherwise, enter a "0" for Parameter No. TLP6C.
 - (B) Report the NOEC value for survival, Parameter No. TOP6C.
 - (C) Report the NOEC value for growth, Parameter No. TPP6C.

ii. Ceriodaphnia dubia

- (A) If the NOEC for survival is less than the critical dilution, enter a "1"; otherwise, enter a "0" for Parameter No. TLP3B.
- (B) Report the NOEC value for survival, Parameter No. TOP3B.
- (C) Report the NOEC value for reproduction, Parameter No. TPP3B.

5. TOXICITY REDUCTION EVALUATION (TRE)

- Within ninety (90) days of confirming lethality in the retests, the permittee shall submit a Toxicity Reduction Evaluation (TRE) Action Plan and Schedule for conducting a TRE. The TRE Action Plan shall specify the approach and methodology to be used in performing the TRE. A Toxicity Reduction Evaluation is an investigation intended to determine those actions necessary to achieve compliance with water quality-based effluent limits by reducing an effluent's toxicity to an acceptable level. A TRE is defined as a step-wise process which combines toxicity testing and analyses of the physical and chemical characteristics of a toxic effluent to identify the constituents causing effluent toxicity and/or treatment methods which will reduce the effluent toxicity. The TRE Action Plan shall lead to the successful elimination of effluent toxicity at the critical dilution and include the following:
 - i. Specific Activities. The plan shall detail the specific approach the permittee intends to utilize in conducting the TRE. The approach may include toxicity characterizations, identifications and confirmation activities, source evaluation, treatability studies, or alternative approaches. When the permittee conducts Toxicity Characterization Procedures the permittee shall perform multiple characterizations and follow the procedures specified in the documents "Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures" (EPA-600/6-91/003) and "Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I" (EPA-600/6-91/005F), or alternate procedures. When the permittee conducts Toxicity Identification Evaluations and Confirmations, the permittee shall perform multiple identifications and follow the methods specified in the documents "Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and

Chronic Toxicity" (EPA/600/R-92/080) and "Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/081), as appropriate.

The documents referenced above may be obtained through the <u>National Technical Information Service</u> (NTIS) by phone at (703) 487-4650, or by writing:

U.S. Department of Commerce National Technical Information Service 5285 Port Royal Road Springfield, VA 22161

ii. Sampling Plan (e.g., locations, methods, holding times, chain of custody, preservation, etc.). The effluent sample volume collected for all tests shall be adequate to perform the toxicity test, toxicity characterization, identification and confirmation procedures, and conduct chemical specific analyses when a probable toxicant has been identified;

Where the permittee has identified or suspects specific pollutant(s) and/or source(s) of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical specific analyses for the identified and/or suspected pollutant(s) and/or source(s) of effluent toxicity. Where lethality was demonstrated within 48 hours of test initiation, each composite sample shall be analyzed independently. Otherwise the permittee may substitute a composite sample, comprised of equal portions of the individual composite samples, for the chemical specific analysis;

- iii. Quality Assurance Plan (e.g., QA/QC implementation, corrective actions, etc.); and
- iv. Project Organization (e.g., project staff, project manager, consulting services, etc.).
- b. The permittee shall initiate the TRE Action Plan within thirty (30) days of plan and schedule submittal. The permittee shall assume all risks for failure to achieve the required toxicity reduction.
- c. The permittee shall submit a quarterly TRE Activities Report, with the Discharge Monitoring Report in the months of January, April, July and

October, containing information on toxicity reduction evaluation activities including:

- i. any data and/or substantiating documentation which identifies the pollutant(s) and/or source(s) of effluent toxicity;
- ii. any studies/evaluations and results on the treatability of the facility's effluent toxicity; and
- iii. any data which identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to meet no significant lethality at the critical dilution.

A copy of the TRE Activities Report shall also be submitted to the state agency.

d. The permittee shall submit a Final Report on Toxicity Reduction Evaluation Activities no later than twenty-eight (28) months from confirming lethality in the retests, which provides information pertaining to the specific control mechanism selected that will, when implemented, result in reduction of effluent toxicity to no significant lethality at the critical dilution. The report will also provide a specific corrective action schedule for implementing the selected control mechanism.

A copy of the Final Report on Toxicity Reduction Evaluation Activities shall also be submitted to the state agency.

PART III - STANDARD CONDITIONS FOR NPDES PERMITS

A. GENERAL CONDITIONS

1. INTRODUCTION

In accordance with the provisions of 40 CFR Part 122.41, et. seq., this permit incorporates by reference ALL conditions and requirements applicable to NPDES Permits set forth in the Clean Water Act, as amended, (hereinafter known as the "Act") as well as ALL applicable regulations.

2. DUTY TO COMPLY

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application.

3. TOXIC POLLUTANTS

- a. Notwithstanding Part III.A.5, if any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under Section 307(a) of the Act for a toxic pollutant which is present in the discharge and that standard or prohibition is more stringent than any limitation on the pollutant in this permit, this permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition.
- b. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Act for toxic pollutants within the time provided in the regulations that established those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

DUTY TO REAPPLY

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The application shall be submitted at least 180 days before the expiration date of this permit. The Director may grant permission to submit an application less than 180 days in advance but no later than the permit expiration date. Continuation of expiring permits shall be governed by regulations promulgated at 40 CFR Part 122.6 and any subsequent amendments.

5. PERMIT FLEXIBILITY

This permit may be modified, revoked and reissued, or terminated for cause in accordance with 40 CFR 122.62-64. The filing of a request for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

6. PROPERTY RIGHTS

This permit does not convey any property rights of any sort, or any exclusive privilege.

7. DUTY TO PROVIDE INFORMATION

The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

8. CRIMINAL AND CIVIL LIABILITY

Except as provided in permit conditions on "Bypassing" and "Upsets", nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance. Any false or materially misleading representation or concealment of information required to be reported by the provisions of the permit, the Act, or applicable regulations, which avoids or effectively defeats the regulatory purpose of the Permit may subject the Permittee to criminal enforcement pursuant to 18 U.S.C. Section 1001.

9. OIL AND HAZARDOUS SUBSTANCE LIABILITY

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Act.

10. STATE LAWS

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the Act.

11. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

B. PROPER OPERATION AND MAINTENANCE

1. NEED TO HALT OR REDUCE NOT A DEFENSE

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. The permittee is responsible for maintaining adequate safeguards to prevent the discharge of untreated or inadequately treated wastes during electrical power failure either by means of alternate power sources, standby generators or retention of inadequately treated effluent.

2. DUTY TO MITIGATE

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

3. PROPER OPERATION AND MAINTENANCE

- a. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by permittee as efficiently as possible and in a manner which will minimize upsets and discharges of excessive pollutants and will achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of this permit.
- b. The permittee shall provide an adequate operating staff which is duly qualified to carry out operation, maintenance and testing functions required to insure compliance with the conditions of this permit.

4. BYPASS OF TREATMENT FACILITIES

a. BYPASS NOT EXCEEDING LIMITATIONS

The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Parts III.B.4.b. and 4.c.

b. NOTICE

(1) ANTICIPATED BYPASS

If the permittee knows in advance of the need for a bypass, it shall submit prior notice to EPA Region 6 and NMED, if possible at least ten days before the date of the bypass.

(2) UNANTICIPATED BYPASS

The permittee shall, within 24 hours, submit notice of an unanticipated bypass as required in Part III.D.7.

c. PROHIBITION OF BYPASS

- (1) Bypass is prohibited, and the Director may take enforcement action against a permittee for bypass, unless:
 - (a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

- (b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and,
- (c) The permittee submitted notices as required by Part III.B.4.b.
- (2) The Director may allow an anticipated bypass after considering its adverse effects, if the Director determines that it will meet the three conditions listed at Part III.B.4.c(1).

5. **UPSET CONDITIONS**

a. EFFECT OF AN UPSET

An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of Part III.B.5.b. are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

b. <u>CONDITIONS NECESSARY FOR A DEMONSTRATION</u> OF UPSET

A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

- An upset occurred and that the permittee can identify the cause(s) of the upset;
- The permitted facility was at the time being properly operated;
- (3) The permittee submitted notice of the upset as required by Part III.D.7; and,
- (4) The permittee complied with any remedial measures required by Part III.B.2.

c. BURDEN OF PROOF

In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

6. REMOVED SUBSTANCES

Unless otherwise authorized, solids, sewage sludges, filter backwash, or other pollutants removed in the course of treatment or wastewater control shall be disposed of in a manner such as to prevent any pollutant from such materials from entering navigable waters.

7. <u>PERCENT REMOVAL (PUBLICLY OWNED TREATMENT</u> WORKS)

For publicly owned treatment works, the 30-day average (or Monthly Average) percent removal for Biochemical Oxygen Demand and Total Suspended Solids shall not be less than 85 percent unless otherwise authorized by the permitting authority in accordance with 40 CFR 133.103.

C. MONITORING AND RECORDS

INSPECTION AND ENTRY

The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by the law to:

- Enter upon the permittee's premises where a regulated facility
 or activity is located or conducted, or where records must be
 kept under the conditions of this permit;
- Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this permit; and
- d. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the Act, any substances or parameters at any location.

2. REPRESENTATIVE SAMPLING

Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

3. RETENTION OF RECORDS

The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report, or application. This period may be extended by request of the Director at any time.

4. RECORD CONTENTS

Records of monitoring information shall include:

a. The date, exact place, and time of sampling or measurements;

- The individual(s) who performed the sampling or measurements;
- c. The date(s) and time(s) analyses were performed;
- d. The individual(s) and laboratory who performed the analyses;
- e. The analytical techniques or methods used; and
- The results of such analyses.

5. MONITORING PROCEDURES

- a. Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit or approved by the Regional Administrator.
- b. The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instruments at intervals frequent enough to insure accuracy of measurements and shall maintain appropriate records of such activities.
- c. An adequate analytical quality control program, including the analyses of sufficient standards, spikes, and duplicate samples to insure the accuracy of all required analytical results shall be maintained by the permittee or designated commercial laboratory.

6. FLOW MEASUREMENTS

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to insure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than 10% from true discharge rates throughout the range of expected discharge volumes.

D. REPORTING REQUIREMENTS

PLANNED CHANGES

The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

- The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR Part 122.29(b); or,
- (2) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements listed at Part III.D.10.a.

2. ANTICIPATED NONCOMPLIANCE

The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

TRANSFERS

This permit is not transferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Act.

4. <u>DISCHARGE MONITORING REPORTS AND OTHER REPORTS</u>

Monitoring results must be reported on Discharge Monitoring Report (DMR) Form EPA No. 3320-1 in accordance with the "General Instructions" provided on the form. The permittee shall submit the original DMR signed and certified as required by Part III.D.11 and all other reports required by Part III.D. to the EPA at the address below. Duplicate copies of DMR's and all other reports shall be submitted to the appropriate State agency(ies) at the following address(es):

EPA:

Compliance Assurance and Enforcement Division Water Enforcement Branch (6EN-W)
U.S. Environmental Protection Agency, Region 6
1445 Ross Avenue
Dallas, TX 75202-2733

New Mexico:
Program Manager
Surface Water Quality Bureau
New Mexico Environment Department
P.O. Box 26110
1190 Saint Francis Drive
Santa Fe, NM 87502

5. <u>ADDITIONAL MONITORING BY THE PERMITTEE</u>

If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR Part 136 or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report (DMR). Such increased monitoring frequency shall also be indicated on the DMR.

6. AVERAGING OF MEASUREMENTS

Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Director in the permit.

7. TWENTY-FOUR HOUR REPORTING

 The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall be provided within 5 days of the time the permittee becomes aware of the circumstances. The report shall contain the following information:

- (1) A description of the noncompliance and its cause;
- (2) The period of noncompliance including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and,
- (3) Steps being taken to reduce, eliminate, and prevent recurrence of the noncomplying discharge.
- The following shall be included as information which must be reported within 24 hours:
 - (1) Any unanticipated bypass which exceeds any effluent limitation in the permit;
 - Any upset which exceeds any effluent limitation in the permit, and,
 - (3) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in Part II (industrial permits only) of the permit to be reported within 24 hours.
- c. The Director may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

8. OTHER NONCOMPLIANCE

The permittee shall report all instances of noncompliance not reported under Parts III.D.4 and D.7 and Part I.B (for industrial permits only) at the time monitoring reports are submitted. The reports shall contain the information listed at Part III.D.7.

9. OTHER INFORMATION

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information.

10. CHANGES IN DISCHARGES OF TOXIC SUBSTANCES

All existing manufacturing, commercial, mining, and silvacultural permittees shall notify the Director as soon as it knows or has reason to believe:

a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant listed at 40 CFR Part 122, Appendix D, Tables II and III (excluding Total Phenols) which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

- One hundred micrograms per liter (100 μg/L);
- (2) Two hundred micrograms per liter (200 μg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 μg/L) for 2,4-dinitro-phenol and for 2methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
- (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application; or
- (4) The level established by the Director.
- b. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - (1) Five hundred micrograms per liter (500 μ g/L);
 - (2) One milligram per liter (1 mg/L) for antimony;
 - (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application; or
 - (4) The level established by the Director.

11. SIGNATORY REQUIREMENTS

All applications, reports, or information submitted to the Director shall be signed and certified.

- a. ALL PERMIT APPLICATIONS shall be signed as follows:
 - (1) FOR A CORPORATION by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:
 - (a) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation, or,
 - (b) The manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
 - (2) FOR A PARTNERSHIP OR SOLE PROPRIETORSHIP - by a general partner or the proprietor, respectively.
 - (3) FOR A MUNICIPALITY, STATE, FEDERAL, OR OTHER PUBLIC AGENCY - by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:

- (a) The chief executive officer of the agency, or
- (b) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.
- <u>ALL REPORTS</u> required by the permit and other information requested by the Director shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - The authorization is made in writing by a person described above;
 - (2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. A duly authorized representative may thus be either a named individual or an individual occupying a named position; and.
 - (3) The written authorization is submitted to the Director.

c. <u>CERTIFICATION</u>

Any person signing a document under this section shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

12. AVAILABILITY OF REPORTS

Except for applications, effluent data, permits, and other data specified in 40 CFR 122.7, any information submitted pursuant to this permit may be claimed as confidential by the submitter. If no claim is made at the time of submission, information may be made available to the public without further notice.

- E. PENALTIES FOR VIOLATIONS OF PERMIT CONDITIONS
- CRIMINAL
 - a. <u>NEGLIGENT VIOLATIONS</u>

The Act provides that any person who negligently violates permit conditions implementing Section 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than 1 year, or both.

KNOWING VIOLATIONS

The Act provides that any person who knowingly violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a fine of not less than \$5,000 nor more than \$50,000 per day of violation, or by imprisonment for not more than 3 years, or both.

c. KNOWING ENDANGERMENT

The Act provides that any person who knowingly violates permit conditions implementing Sections 301, 302, 303, 306, 307, 308, 318, or 405 of the Act and who knows at that time that he is placing another person in imminent danger of death or serious bodily injury is subject to a fine of not more than \$250,000, or by imprisonment for not more than 15 years, or both.

d. <u>FALSE STATEMEN</u>TS

The Act provides that any person who knowingly makes any false material statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under the Act or who knowingly falsifies, tampers with, or renders inaccurate, any monitoring device or method required to be maintained under the Act, shall upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than 2 years, or by both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment shall be by a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than 4 years, or by both. (See Section 309.c.4 of the Clean Water Act)

' 2.' <u>CIVIL PENALTIES</u>

The Act provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a civil penalty not to exceed \$27,500 per day for each violation.

3. <u>ADMINISTRATIVE PENALTIES</u>

The Act provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to an administrative penalty, as follows:

a. CLASS I PENALTY

Not to exceed \$11,000 per violation nor shall the maximum amount exceed \$27,500.

b. CLASS II PENALTY

Not to exceed \$11,000 per day for each day during which the violation continues nor shall the maximum amount exceed \$137,500.

F. DEFINITIONS

All definitions contained in Section 502 of the Act shall apply to this permit and are incorporated herein by reference. Unless otherwise specified in this permit, additional definitions of words or phrases used in this permit are as follows:

- ACT means the Clean Water Act (33 U.S.C. 1251 et. seq.), as amended.
- 2. <u>ADMINISTRATOR</u> means the Administrator of the U.S. Environmental Protection Agency.
- APPLICABLE EFFLUENT STANDARDS AND LIMITATIONS
 means all state and Federal effluent standards and limitations to
 which a discharge is subject under the Act, including, but not
 limited to, effluent limitations, standards or performance, toxic
 effluent standards and prohibitions, and pretreatment standards.
- APPLICABLE WATER QUALITY STANDARDS means all water quality standards to which a discharge is subject under the Act.
- BYPASS means the intentional diversion of waste streams from any portion of a treatment facility.
- during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in terms of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the sampling day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the sampling day. "Daily discharge" determination of concentration made using a composite sample shall be the concentration of the composite sample. When grab samples are used, the "daily discharge" determination of concentration shall be arithmetic average (weighted by flow value) of all samples collected during that sampling day.
- 7. <u>DAILY MAXIMUM</u> discharge limitation means the highest allowable "daily discharge" during the calendar month.
- DIRECTOR means the U.S. Environmental Protection Agency Regional Administrator or an authorized representative.
- 9. <u>ENVIRONMENTAL PROTECTION AGENCY</u> means the U.S. Environmental Protection Agency.
- GRAB SAMPLE means an individual sample collected in less than 15 minutes.
- INDUSTRIAL USER means a nondomestic discharger, as identified in 40 CFR 403, introducing pollutants to a publicly owned treatment works.

12. MONTHLY AVERAGE (also known as DAILY AVERAGE) discharge limitations means the highest allowable average of "daily discharge(s)" over a calendar month, calculated as the sum of all "daily discharge(s)" measured during a calendar month divided by the number of "daily discharge(s)" measured during that month. When the permit establishes daily average concentration effluent limitations or conditions, the daily average concentration means the arithmetic average (weighted by flow) of all "daily discharge(s)" of concentration determined during the calendar month where C = daily concentration, F = daily flow, and n = number of daily samples; daily average discharge =

$$C_1F_1 + C_2F_2 + ... + C_nF_n$$

$$\overline{F_1 + F_2 + ... + F_n}$$

- 13. NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 318, 402, and 405 of the Act.
- 14. <u>SEVERE PROPERTY DAMAGE</u> means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
- 15. <u>SEWAGE SLUDGE</u> means the solids, residues, and precipitates separated from or created in sewage by the unit processes of a publicly owned treatment works. Sewage as used in this definition means any wastes, including wastes from humans, households, commercial establishments, industries, and storm water runoff, that are discharged to or otherwise enter a publicly owned treatment works.
- 16. TREATMENT WORKS means any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage and industrial wastes of a liquid nature to implement Section 201 of the Act, or necessary to recycle or reuse water at the most economical cost over the estimated life of the works, including intercepting sewers, sewage collection systems, pumping, power and other equipment, and their appurtenances, extension, improvement, remodeling, additions, and alterations thereof
- 17. <u>UPSET</u> means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

- FOR FECAL COLIFORM BACTERIA, a sample consists of one effluent grab portion collected during a 24-hour period at peak loads.
- 19. The term "MGD" shall mean million gallons per day.
- The term "mg/L" shall mean milligrams per liter or parts per million (ppm).
- 21. The term "<u>µg/L</u>" shall mean micrograms per liter or parts per billion (ppb).

22. MUNICIPAL TERMS

- a. 7-DAY AVERAGE or WEEKLY AVERAGE, other than for fecal coliform bacteria, is the arithmetic mean of the daily values for all effluent samples collected during a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week. The 7-day average for fecal coliform bacteria is the geometric mean of the values for all effluent samples collected during a calendar week.
- b. 30-DAY AVERAGE or MONTHLY AVERAGE, other than for fecal coliform bacteria, is the arithmetic mean of the daily values for all effluent samples collected during a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month. The 30-day average for fecal coliform bacteria is the geometric mean of the values for all effluent samples collected during a calendar month.
- c. <u>24-HOUR COMPOSITE SAMPLE</u> consists of a minimum of 12 effluent portions collected at equal time intervals over the 24-hour period and combined proportional to flow or a sample collected at frequent intervals proportional to flow over the 24-hour period.
- d. 12-HOUR COMPOSITE SAMPLE consists of 12 effluent portions collected no closer together than one hour and composited according to flow. The daily sampling intervals shall include the highest flow periods.
- e. 6-HOUR COMPOSITE SAMPLE consists of six effluent portions collected no closer together than one hour (with the first portion collected no earlier than 10:00 a.m.) and composited according to flow.
- f. 3-HOUR COMPOSITE SAMPLE consists of three effluent portions collected no closer together than one hour (with the first portion collected no earlier than 10:00 a.m.) and composited according to flow.